

LISTING OF THE CLAIMS

A complete listing of the claims is provided below. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method of harmonic diagnosis for electric equipment to determine an abnormality of an electric motor or inverter from a current harmonic flowing to said electric motor and inverter that form electric equipment, comprising:

comparing an index value, which is obtained by dividing a relative harmonic content of each order of current harmonics by total harmonic distortion of the current harmonics up to a predetermined order, with a criteria value, which is obtained by multiplying a harmonic function of each order found through calculation from the relative harmonic content of each order, wherein

the degrees of deterioration of said electric motor and inverter are distinguished from each other by weighting said criteria value, and a deteriorated part is determined from a specific harmonic order of said current harmonics, used to prevent abnormality of the electric motor or inverter.

2. (Previously Presented) The method of harmonic diagnosis for electric equipment according to claim 1, wherein

the specific harmonic orders are at least one odd order and at least one even order.

3. (Original) The method of harmonic diagnosis for electric equipment according to claim 1, wherein

the degrees of deterioration are distinguished into “normal”, “caution is needed” and “defective”.

4. (Previously Presented) The method of harmonic diagnosis for electric equipment according to claim 2, wherein

the at least one odd order includes odd orders and the at least one even order includes even orders and the odd orders and the even orders are the 2nd order, the 3rd order, the 4th order, the 5th order, the 6th order, the 7th order, the 8th order, the 9th order, the 10th order, the 11th order, the 13th order, the 17th order, the 19th order, the 23rd order, the 25th order and the 38th order.

5. (Original) The method of harmonic diagnosis for electric equipment according to claim 3, wherein

the “caution is needed” is distinguished into light deterioration, intermediate deterioration, and heavy deterioration according to the degrees of deterioration of the device.

6. (New) A method of harmonic diagnosis for electric equipment to determine an abnormality of an electric motor or inverter from a current harmonic flowing to said electric motor and inverter that form electric equipment, comprising:

comparing an index value, which is obtained by dividing a relative harmonic content of each order of current harmonics by total harmonic distortion of the current harmonics up to a predetermined order, with a criteria value, which is obtained by multiplying a harmonic function of each order found through calculation from the relative harmonic content of each order, wherein

the degrees of deterioration of said electric motor and inverter are distinguished from each other by weighting said criteria value, and a deteriorated part is determined from a specific harmonic order of said current harmonics, outputting to a user.